RIVERPRO

REFERENCE MANUAL

AWIPS Builds 4.3.3 and 5.0

National Weather Service
Office of Hydrologic Development

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1.0 Introduction

This document describes the operation of the River Product Formatter (RiverPro) application, which generates text products for the National Weather Service (NWS) hydrology program.

1.1 Products Created by RiverPro

Two classes of products can be generated by RiverPro:

- Official products for distribution to the NOAA Weather Wire System (NWWS) and other destinations.
- Voice-ready products for the NOAA Weather Radio Console Replacement System (NWR/CRS).

Different NWS product categories are also supported. The emphasis of RiverPro is on the following hydrologic products:

- River Statement (RVS)
- Flood Statement (FLS)
- Flood Warning (FLW)

Products for additional categories can also be generated, such as the River and Rainfall Summary (RVA), the River Recreation Statement (RVR), and the Miscellaneous River Product (RVM). Furthermore, RiverPro's ability to retrieve data from the database and present it in customized reports can be exploited to create internal reports of the hydrometeorological data. RiverPro is intended for use at National Weather Service (NWS) Weather Forecast Offices (WFOs) on the AWIPS workstations.

1.2 Version Information

This document discusses RiverPro as delivered for AWIPS Build 5.0. Essentially all the features included in Build 5.0 are also a part of Build 4.3.3. There are only three features provided in Build 5.0 that are different or not available in Build 4.3.3. First, the translation of coded values to English phrases is now done via a database table, rather than using the translation file required in Build 4.3.3. Second, the use of type-source ranking fully implemented in Build 5.0 is only partially implemented in Build 4.3.3, which limits this feature to observed data types using the RiverPro "PE" template variables. Lastly, in Build 5.0, historical crests marked as suppressed are no longer selectable for the crest comparison section.

In Build 4.3.3, numerous features, some major and some minor, were added to the RiverPro application. To see a summary of just the changes that were adopted for Build 4.3.3, and also for Build 5.0, it is strongly recommended that you refer to the AWIPS WHFS release notes available on the web.

1.3 Summary of RiverPro Data Sets

RiverPro retrieves the majority of its data from a relational database referred to as the Integrated Hydrologic Forecast System (IHFS) database. This includes all the dynamic environmental data, and all the static hydrometeorological characteristics data for a station. The IHFS database is managed by the HydroBase Manager application, which provides the user with an extensive interface to the database. RiverPro and HydroBase are both part of a collection of programs that comprise the WFO Hydrologic Forecast System (WHFS). All programs in the WHFS access the IHFS database.

In addition to the database storage, a small but important set of data used by RiverPro is contained in text files. These files contain the product setting information and the phrase templates, which together control the wording in the generated product.

1.4 Overview of Document

This document does not discuss the graphical user interface for controlling the operation of RiverPro. Rather, it provides detailed descriptions of the methods used to generate and issue the product. The body of the document describes various functional aspects of RiverPro, while the appendices provide reference information. A separate document provides instruction on the graphical user interface to RiverPro.

In Section 2.0, an overview of the RiverPro application is presented. Section 3.0 gives a discussion of the various automatic recommendations for generating a product, that are determined by RiverPro. Sections 4.0 and 5.0 give a detailed discussion of how RiverPro generates official products and NWR/CRS products, respectively. One of the primary concepts RiverPro uses for product generation is the use of templates which contain the text phrases. These templates are the topic of Section 6.0.

The template file syntax and the template variables are the subject of Appendix A and B. The product settings information, which are managed internally by RiverPro, uses a file format described in Appendix C. Within RiverPro is a user interface that provides the means to edit the product settings. For the template files, the interface allows their review but edits must be made using an editor external to RiverPro. The text files and database tables that provide data to RiverPro are described in Appendix D.

This document, along with other tutorial and reference information on RiverPro, is available via the Office of Hydrologic Development web site. Any updates to this

manual will also be made available on the web site, accessible through the Internet address: http://www.nws.noaa.gov.